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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES



APPEAL BRIEF FOR THE APPELLANT

Ex parte Cheng-Liang HOU

**SYSTEM AND METHOD FOR CONTROLLING PACKET TRANSMISSION USING A
PLURALITY OF BUCKETS**

Serial No. 10/748,223

Appeal No.:

Group Art Unit: 2616

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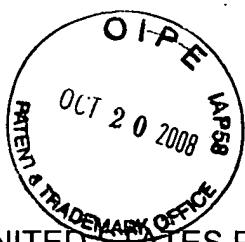
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Appeal Brief



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellant:

Cheng-Liang HOU

Appeal No.:

Serial Number: 10/748,223

Group Art Unit: 2616

Filed: December 31, 2003

Examiner: Nittaya Juntima

For: SYSTEM AND METHOD FOR CONTROLLING PACKET TRANSMISSION USING
A PLURALITY OF BUCKETS

BRIEF ON APPEAL

October 20, 2008

I. INTRODUCTION

This is an appeal from the final rejection set forth in an Official Action dated April 29, 2008, finally rejecting claims 1-19, all of the claims pending in this application, as being anticipated by or unpatentable over Buskirk (U.S. Patent Publication No. 2006/0159019) in view of Weberhofer (U.S. Patent No. 6,014,384) in view of Appellant's admitted prior art (paragraph [0003] of the present application) and further in view of Zhang (U.S. Patent No. 7,130,917). A Request for Reconsideration was timely filed on June 6, 2008. An Advisory Action was issued on July 3, 2008, indicating that the proposed arguments will be entered. A Notice of Appeal together with a Pre-Appeal Request for Review was timely filed on July 15, 2008. This Appeal Brief is being timely filed.

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II. REAL PARTY IN INTEREST

The real party in interest in this application is Broadcom Corporation, as evidenced by an assignment that was recorded at Reel 014861, Frame 0860, on December 31, 2003.

III. STATEMENT OF RELATED APPEALS AND INTERFERENCES –

37 CFR 41.37(c)(1)(ii)

There are no known related applications, patents, appeals, judicial proceedings, and/or interferences which will directly effect or be directly effected by or have a bearing on the Board's decision in this appeal.

IV. STATUS OF CLAIMS

Claims 1-19, all of the claims pending in the present application are the subject of this appeal. See Section VII ("Grounds of Rejection") below, for a detailed listing of the various grounds of rejection.

V. STATUS OF AMENDMENTS

All of claims 1-19 stand as they were previously presented prior to the final Office Action of April 29, 2008. No amendments have been submitted or entered since that time. Thus, claims 1-19 are pending and the respective rejections of claims 1-19 are appealed.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

The following is a concise explanation of the subject matter defined in each of the independent claims and the separately argued dependent claims, as required by 37 CFR 41.37(c)(1)(v).

Claim 1, upon which claims 2-9 are dependent, recites a method that includes setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type. See, *for example*, page 6, lines 2-4 and FIGS. 2 & 3. The method also includes incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters. See, *for example*, page 6, lines 6-8 & page 10, lines 8 and 9, and FIGS. 4, 5 & 6. The method further includes receiving a packet having a packet type. See, *for example*, page 10, lines 5-8, and FIG. 6. The method also includes measuring the bucket that is coupled to the packet type filter that filters for the received packet type, and transmitting the packet if its measured bucket is above a threshold value. See, *for example*, page 10, lines 20 through page 11, line 11, and FIGS. 6 & 7.

Claim 10 recites a system which includes means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type. See, *for example*, page 6, lines 2-4 and FIGS. 2 & 3. The system also includes means for incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters. See, *for*

example, page 6, lines 6-8 & page 10, lines 8 and 9, and FIGS. 4, 5 & 6. The system further includes means for receiving a packet having a packet type. See, *for example, page 10, lines 5-8 and FIG. 6.* The system also includes means for measuring the bucket that is coupled to the packet type filter that filters for the received packet type. See, *for example, page 10, lines 20 through page 11, line 11, and FIGS. 6 & 7.* The system also includes means for transmitting the packet if the measured bucket is above a threshold value See, *for example, page 10, lines 20 through page 11, line 11, and FIGS. 6 & 7.*

Claim 11, upon which claims 12-19 are dependent, recites a system that includes a packet receiving engine, configured to receive packets of at least a first type and a second type. See, *for example, page 10, lines 5-8, and FIG. 6.* The system also includes a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet type filters, each packet type filter being configured to filter at least one packet type. See, *for example, page 6, lines 2-4 and FIGS. 2 & 3.* The system further includes a bucket updating engine, communicatively coupled to the packet receiving engine, configured to increment a first bucket and a second bucket. See, *for example, page 6, lines 6-8 & page 10, lines 8 and 9, and FIGS. 4, 5 & 6.* The system also includes a packet handling engine, communicatively coupled to the packet receiving engine, configured to measure the bucket coupled to the packet type filter that filters for the type of packet received, and configured to

transmit the received packet if the measured bucket is above a threshold value.

See, *for example*, page 10, lines 20 through page 11, line 11, and FIGS. 6 & 7.

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues on appeal are whether claims 1-6, 9-16 and 19 are anticipated by Buskirk (U.S. Patent Publication No. 2006/0159019); whether claims 7, 8, 17 and 18 are obvious over Buskirk; and whether claims 1-3, 6-13 and 16-19 are obvious over Weberhofer (U.S. Patent No. 6,014,384) in view of Appellant's admitted prior art (paragraph [0003] of the present application). Other issues on appeal are whether claims 4, 5, 14 and 15 are obvious over Weberhofer, Appellant's admitted prior art and further in view of Zhang (U.S. Patent No. 7,130,917).

As will be discussed below, this Appeal Brief will show that these rejections should be withdrawn, and this application passed to issue.

VIII. APPELLANT'S ARGUMENTS

Appellants respectfully submit that each of the pending claims 1-19 recites subject matter that is not taught, disclosed, or suggested by the cited art. Each of the claims is being argued separately, and thus, each of the claims stands or falls alone.

A. Claims 1-6, 9-16 and 19 are novel in view of Buskirk

i. Claim 1

Claim 1, upon which claims 2-9 are dependent, recites a method that includes setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type, and incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters. The method further includes receiving a packet having a packet type, measuring the bucket that is coupled to the packet type filter that filters for the received packet type, and transmitting the packet if its measured bucket is above a threshold value.

Appellant respectfully submits that the disclosure of Buskirk fails to disclose or suggest all of the elements of claim 1 and related dependent claims.

Initially, Appellant submits that claim 104 of Buskirk cannot be used to support a rejection of the claims of the present application. Claim 104 of Buskirk was introduced into the specification of Buskirk for the purpose of provoking an interference with the present application (note the carbon copy of claim 104 of Buskirk with respect to claim 1 of the present application). If the contents of Buskirk's disclosure were to support the subject matter of claim 104 then there would be no reason to rely on claim 104 to reject

the claims of the present application. If the contents of claim 104 are not supported by Buskirk, then relying on them would be a violation of §112, first paragraph, under the enablement requirement. Claim 104 of Buskirk should not be cited in any rejection used to reject the claims of the present application. Therefore, in relying on the teachings of claim 104 to reject the claims, the Office Action has failed to properly reject the claims.

The Final Office Action dated April 29, 2008 relied on the teachings of claim 104 to reject the claims (see last 5 lines of page 2). As established above, relying on claim 104 of Buskirk is clearly improper. Therefore, the Final Office Action was improper.

Referring to the Advisory Action, the rejection attempted to reject the claims, for the first time, without using the subject matter of claim 104 and instead asserted that classifier 402 in itself allegedly teaches the subject matter of claim 1 of the present application. The Advisory Action also alleged, for the first time, that “Since more than one packet type is present and classified, the classifier 402 must logically set a plurality of packet type filters so that each of the packet type filters can filter/classify a different flow/packet type.”

Clearly, the Advisory Action admits that Buskirk does not explicitly disclose “setting a plurality of packet type filters” because in the statement that “the classifier 402 must logically set a plurality of packet type filters”, the Advisory Action is implying that Buskirk does not explicitly teach all of features of the claims. Therefore, for at least the admissions made in the Advisory Action that Buskirk does not explicitly disclose all of the subject matter of claim 1, the rejection under §102(e) is improper and must be withdrawn.

With regard to the classifier 104, paragraph [0055] of Buskirk discloses a classifier 402 that classifies/parses the incoming stream of packets into separate logical flows with

the flow identifier embedded in the local header of a cell/packet (see FIG. 4 of Buskirk). The classifier 402 is a single unit that is used to classify individual packets into a variety of different “flows” or “connections” (see paragraphs [0055] and [0058] of Buskirk). In operation an upstream classifier module classifies the incoming stream and assigns a flow identifier which is used to classify a packet to a corresponding flow (see paragraph [0057], lines 1-4 of Buskirk). Classifier 402 is a single entity that does not disclose or suggest having a plurality of packet type filters. In addition, because Buskirk does not disclose a plurality of packet type filters, Buskirk certainly does not disclose setting a plurality of packet type filters so that each of the packet type filters performs filtering for a different packet type, as recited in claim 1 (emphasis added).

As stated above, the only packet handling performed by Buskirk, identified by the Office Action as a filtering operation, is performed by the classifier 402. The single/individual/solitary classifier 402 handles all packet classifying regardless of the packet’s type.

In short, Buskirk fails to disclose or suggest “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 and similarly in independent claims 10 and 11.

As such, Appellant respectfully requests that the rejection of claim 1 be reversed and the claim be allowed.

ii. Claim 2

Claim 2 depends from claim 1 and further limits claim 1. Furthermore, claim 2 recites “dropping the packet if the measured bucket is below a threshold value.” Because

Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 2.

For at least this reason it is respectfully requested that the rejection of claim 2 be reversed.

iii. Claim 3

Claim 3 depends from claim 1 and further limits claim 1. Furthermore, claim 3 recites “decrementing the measured bucket if the packet is transmitted.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 3.

For at least this reason it is respectfully requested that the rejection of claim 3 be reversed.

iv. Claim 4

Claim 4 depends from claim 1 and further limits claim 1. Furthermore, claim 4 recites “the decrementing decrements the measured bucket by a length of the transmitted packet.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1

as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 4.

For at least this reason it is respectfully requested that the rejection of claim 4 be reversed.

v. Claim 5

Claim 5 depends from claim 3 which depends from claim 1 and further limits claim 1. Furthermore, claim 5 recites “the decrementing decrements the measured bucket by a token.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 5.

For at least this reason it is respectfully requested that the rejection of claim 5 be reversed.

vi. Claim 6

Claim 6 depends from claim 1 and further limits claim 1. Furthermore, claim 6 recites “the buckets are each incremented at different rates.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 6.

For at least this reason it is respectfully requested that the rejection of claim 6 be reversed.

vii. Claim 9

Claim 9 depends from claim 1 and further limits claim 1. Furthermore, claim 9 recites “a first packet type includes packets having a first QOS level and a second packet type includes packets having a second QOS level.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 9.

For at least this reason it is respectfully requested that the rejection of claim 9 be reversed.

viii. Claim 10

Claim 10 recites a system which includes means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type, and means for incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters. The system further includes means for receiving a packet having a packet type, means for measuring the bucket that is coupled to the packet type filter that filters for the received packet type, and means for transmitting the packet if the measured bucket is above a threshold value.

Appellant respectfully submits that the disclosure of Buskirk fails to disclose or suggest all of the elements of claim 10.

Appellant respectfully submits that Buskirk fails to disclose or suggest at least the

features of “means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 10 for the same reasons stated above in Section VIII.A.(i) for independent claim 1.

Based at least one the above, Appellant respectfully submits that Buskirk fails to disclose or suggest all of the features of independent claim 10 because Buskirk fails to disclose or suggest “means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 10. It is respectfully requested that the rejection of claim 10 be reversed and the claim be allowed.

ix. Claim 11

Claim 11, upon which claims 12-19 are dependent, recites a system that includes a packet receiving engine, configured to receive packets of at least a first type and a second type, a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet type filters, each packet type filter being configured to filter at least one packet type. The system further includes a bucket updating engine, communicatively coupled to the packet receiving engine, configured to increment a first bucket and a second bucket, a packet handling engine, communicatively coupled to the packet receiving engine, configured to measure the bucket coupled to the packet type filter that filters for the type of packet received, and configured to transmit the received packet if the measured bucket is above a threshold value.

Appellant respectfully submits that the disclosure of Buskirk fails to disclose or

suggest all of the elements of claim 11.

Appellant respectfully submits that Buskirk fails to disclose or suggest at least the features of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 for the same reasons stated above in Section VIII.A.(i) for independent claim 1.

Based at least one the above, Appellant respectfully submits that Buskirk fails to disclose or suggest all of the features of independent claim 11 because Buskirk fails to disclose or suggest “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11. It is respectfully requested that the rejection of claim 11 be reversed and the claim be allowed.

x. Claim 12

Claim 12 depends from claim 11 and further limits claim 11. Furthermore, claim 12 recites “the packet handling engine is further configured to drop the packet if its measured bucket is below a threshold value.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section

VIII.A.(ix), Buskirk also does not disclose the features of claim 12.

For at least this reason it is respectfully requested that the rejection of claim 12 be reversed.

xi. Claim 13

Claim 13 depends from claim 11 and further limits claim 11. Furthermore, claim 13 recites “the bucket updating engine is further configured to decrement the measured bucket if the packet is transmitted.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 13.

For at least this reason it is respectfully requested that the rejection of claim 13 be reversed.

xii. Claim 14

Claim 14 depends from claim 13 which depends from claim 11 and further limits claim 11. Furthermore, claim 14 recites “the bucket updating engine decrements the measured bucket by a length of the transmitted packet.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being

configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 14.

For at least this reason it is respectfully requested that the rejection of claim 14 be reversed.

xiii. Claim 15

Claim 15 depends from claim 13 which depends from claim 11 and further limits claim 11. Furthermore, claim 15 recites “the bucket updating engine decrements the measured bucket by a token.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 15.

For at least this reason it is respectfully requested that the rejection of claim 15 be reversed.

xiv. Claim 16

Claim 16 depends from claim 13 which depends from claim 11 and further limits claim 11. Furthermore, claim 16 recites “the bucket updating engine increments each bucket at different rates.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of

packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 16.

For at least this reason it is respectfully requested that the rejection of claim 16 be reversed.

xv. Claim 19

Claim 19 depends from claim 11 and further limits claim 11. Furthermore, claim 19 recites “the first packet type includes packets having a first QOS level and the second packet type includes packets having a second QOS level.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 19.

For at least this reason it is respectfully requested that the rejection of claim 19 be reversed.

B. Claims 7, 8, 17 and 18 are novel and are not obvious in view of Buskirk

i. Claim 7

Claim 7 depends from claim 1 and further limits claim 1. Furthermore, claim 7 recites “a maximum value for each bucket is different.” Because Buskirk does not

disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 7 and cannot be rendered obvious in view of Buskirk.

For at least this reason it is respectfully requested that the rejection of claim 7 be reversed.

ii. Claim 8

Claim 7 depends from claim 1 and further limits claim 1. Furthermore, claim 8 recites “a first packet type includes unicast and a second packet type includes multicast and broadcast.” Because Buskirk does not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.A.(i), Buskirk also does not disclose the features of claim 8 and cannot be rendered obvious in view of Buskirk.

For at least this reason it is respectfully requested that the rejection of claim 8 be reversed.

iii. Claim 17

Claim 17 depends from claim 11 and further limits claim 11. Furthermore, claim 17 recites “a maximum value for each bucket is different.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each

communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 17 and cannot be rendered obvious in view of Buskirk.

For at least this reason it is respectfully requested that the rejection of claim 17 be reversed.

iv. Claim 18

Claim 18 depends from claim 11 and further limits claim 11. Furthermore, claim 18 recites “the first packet type includes unicast and the second packet type includes multicast and broadcast.” Because Buskirk does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Buskirk also does not disclose the features of claim 18 and cannot be rendered obvious in view of Buskirk.

For at least this reason it is respectfully requested that the rejection of claim 18 be reversed.

C. Claims 1-3, 6-13 and 16-19 are novel and are not obvious over Weberhofer in view of Appellant's admitted prior art

i. Claim 1

Appellant respectfully submits that the combination of Weberhofer and Appellant's admitted prior art fails to disclose or suggest all of the elements of claim 1 and related dependent claims.

Weberhofer discloses that ATM cells are first identified using a mapper 18 which determines the QoS class of the ATM cell and directs the identified ATM cell to the proper queue 19.1, 19.2, 19.3 or 19.4 based on an assigned transmission priority (see column 4, lines 45-50 and FIG. 2 of Weberhofer). The mapper 18 is further configured to assign QoS classes to the ATM cells based on the information contained in the header of the ATM cells and an allocation table (see column 5, lines 3-6 of Weberhofer).

Weberhofer does not teach or suggest "setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type", as recited, in part, in claim 1. The Office Action incorrectly concluded that the mapper 18 and queues 19.1, 19.2, 19.3 and 19.3 are the same as a plurality of packet type filters. Appellants submit that the mapper 18 and the queues 19.1, 19.2, 19.3 and 19.4 do not teach a plurality of filters, as recited, in part, in claim 1.

Referring to the specification of the present application, FIG. 2 illustrates two packet filters (PTFs) which include PTF 205 and PTF 210 (emphasis added). An example of the "filter" operation is disclosed on line 9 of paragraph [0020] of the present application as "a packet has been filtered, e.g., determined to be of a certain type."

The subject matter of the claims clearly recites that there are “a plurality of packet type filters”(emphasis added). Webenhofer fails to disclose a plurality of packet type filters and uses a single/individual/solitary “mapper 18” which determines which QoS class a cell [packet] belongs to (see column 4, lines 45-50 of Webenhofer). The mapper 18 is what determines the QoS of the cells, and because there is only one mapper 18, there can be no plurality of mappers, filters or any other component that is used to perform the cell/packet type determining operations.

The Office Action defended the position that because mapper 18 can classify more than one cell type, it must have “a number of different means/elements that classify/identify different QoS classes and that each means/element, whether it is hardware or software, must be dedicated to identifying one of the QoS classes and assigning it to an ATM cell.” Clearly, the Office Action’s admitted statement that the mapper 18 “must” have a number of different elements comparable to the filters of claim 1, is evidence that Weberhofer does not teach a plurality of filters used to filter packets.

Furthermore, mapper 18 is a single entity that does not disclose or suggest having a plurality of packet type filters. In addition, because Weberhofer does not disclose a plurality of packet type filters, Weberhofer certainly does not disclose setting a plurality of packet type filters so that each of the packet type filters performs filtering for a different packet type, as recited in claim 1 (emphasis added).

As for the Appellant’s admitted prior art (of the present application), paragraph [0003] discloses that buckets may be used to control the transmission of packets throughout a network. Incrementing/decrementing the buckets controls the input and output of data packets to and from the buckets. A threshold level is used to determine if

packets need to be dropped from entering the bucket, or if other preventative measures are necessary. Paragraph [0003], or any other portions of Appellant's admitted prior art, does not provide any support for the above-noted deficiencies of Weberhofer. In particular, Paragraph [0003] does not teach or suggest "setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type", as recited, in part, in claim 1. (Emphasis added)

For at least the reasons discussed above, Appellant respectfully submit that independent claim 1, is allowable over the Appellant's disclosure and Weberhofer. By virtue of dependency, claims 2-9 and 12-19 are also allowable over Weberhofer and Appellant's disclosure.

As such, Appellant respectfully requests that the rejection of claim 1 be reversed and the claim be allowed.

ii. Claim 2

Claim 2 depends from claim 1 and further limits claim 1. Furthermore, claim 2 recites "dropping the packet if the measured bucket is below a threshold value." Because Weberhofer and Appellant's admitted prior art do not disclose the particular features of the method of "setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type", as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant's admitted prior art also do not disclose the features of claim 2.

For at least this reason it is respectfully requested that the rejection of claim 2 be reversed.

iii. Claim 3

Claim 3 depends from claim 1 and further limits claim 1. Furthermore, claim 3 recites “decrementing the measured bucket if the packet is transmitted.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 3.

For at least this reason it is respectfully requested that the rejection of claim 3 be reversed.

iv. Claim 6

Claim 6 depends from claim 1 and further limits claim 1. Furthermore, claim 6 recites “the buckets are each incremented at different rates.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 6.

For at least this reason it is respectfully requested that the rejection of claim 6 be reversed.

v. Claim 7

Claim 7 depends from claim 1 and further limits claim 1. Furthermore, claim 7 recites “a maximum value for each bucket is different.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also does not disclose the features of claim 7.

For at least this reason it is respectfully requested that the rejection of claim 7 be reversed.

vi. Claim 8

Claim 8 depends from claim 1 and further limits claim 1. Furthermore, claim 8 recites “a first packet type includes unicast and a second packet type includes multicast and broadcast.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 8.

For at least this reason it is respectfully requested that the rejection of claim 8 be reversed.

vii. Claim 9

Claim 9 depends from claim 1 and further limits claim 1. Furthermore, claim 9 recites “a first packet type includes packets having a first QOS level and a second packet type includes packets having a second QOS level.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also does not disclose the features of claim 9.

For at least this reason it is respectfully requested that the rejection of claim 9 be reversed.

viii. Claim 10

Claim 10 recites a system which includes means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type, and means for incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters. The system further includes means for receiving a packet having a packet type, means for measuring the bucket that is coupled to the packet type filter that filters for the received packet type, and means for transmitting the packet if the measured bucket is above a threshold value.

Appellant respectfully submits that the disclosure of Weberhofer and Appellant’s admitted prior art fails to disclose or suggest all of the elements of claim 10.

Appellant respectfully submits that Weberhofer and Appellant’s admitted prior art

fails to disclose or suggest at least the features of “means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 10 for the same reasons stated above in Section VIII.C.(i) for independent claim 1.

Based at least one the above, Appellant respectfully submits that Weberhofer and Appellant's admitted prior art fails to disclose or suggest all of the features of independent claim 10 because Weberhofer and Appellant's admitted prior art fails to disclose or suggest “means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 10. It is respectfully requested that the rejection of claim 10 be reversed and the claim be allowed.

ix. Claim 11

Claim 11, upon which claims 12-19 are dependent, recites a system that includes a packet receiving engine, configured to receive packets of at least a first type and a second type, a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet type filters, each packet type filter being configured to filter at least one packet type. The system further includes a bucket updating engine, communicatively coupled to the packet receiving engine, configured to increment a first bucket and a second bucket, a packet handling engine, communicatively coupled to the packet receiving engine, configured to measure the bucket coupled to the packet type filter that filters for the type of packet received, and configured to transmit the received packet if the measured bucket is above

a threshold value.

Appellant respectfully submits that the disclosure of Weberhofer and Appellant's admitted prior art fails to disclose or suggest all of the elements of claim 11.

Appellant respectfully submits that Weberhofer and Appellant's admitted prior art fails to disclose or suggest at least the features of "a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type", as recited, in part, in independent claim 11 for the same reasons stated above in Section VIII.C.(i) for independent claim 1.

Based at least one the above, Appellant respectfully submits that Weberhofer and Appellant's admitted prior art fails to disclose or suggest all of the features of independent claim 11 because Weberhofer and Appellant's admitted prior art fails to disclose or suggest "a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type", as recited, in part, in independent claim 11. It is respectfully requested that the rejection of claim 11 be reversed and the claim be allowed.

x. Claim 12

Claim 12 depends from claim 11 and further limits claim 11. Furthermore, claim 12 recites "the packet handling engine is further configured to drop the packet if its measured bucket is below a threshold value." Because Weberhofer and Appellant's admitted prior art do not disclose the particular features of the system of "a plurality of

buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type", as recited, in part, in independent claim 11 as submitted in Section VIII.C.(ix), Weberhofer and Appellant's admitted prior art also do not disclose the features of claim 12.

For at least this reason it is respectfully requested that the rejection of claim 12 be reversed.

xi. Claim 13

Claim 13 depends from claim 11 and further limits claim 11. Furthermore, claim 13 recites "the bucket updating engine is further configured to decrement the measured bucket if the packet is transmitted." Because Weberhofer and Appellant's admitted prior art do not disclose the particular features of the system of "a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type", as recited, in part, in independent claim 11 as submitted in Section VIII.C.(ix), Weberhofer and Appellant's admitted prior art also do not disclose the features of claim 13.

For at least this reason it is respectfully requested that the rejection of claim 13 be reversed.

xii. Claim 16

Claim 16 depends from claim 13 which depends from claim 11 and further limits

claim 11. Furthermore, claim 16 recites “the bucket updating engine increments each bucket at different rates.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 16.

For at least this reason it is respectfully requested that the rejection of claim 16 be reversed.

xiii. Claim 17

Claim 17 depends from claim 11 and further limits claim 11. Furthermore, claim 17 recites “a maximum value for each bucket is different.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.C.(ix), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 17.

For at least this reason it is respectfully requested that the rejection of claim 17 be reversed.

xiv. Claim 18

Claim 18 depends from claim 11 and further limits claim 11. Furthermore, claim 18 recites “the first packet type includes unicast and the second packet type includes multicast and broadcast.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 18.

For at least this reason it is respectfully requested that the rejection of claim 18 be reversed.

xv. Claim 19

Claim 19 depends from claim 11 and further limits claim 11. Furthermore, claim 19 recites “the first packet type includes packets having a first QOS level and the second packet type includes packets having a second QOS level.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.A.(ix), Weberhofer and Appellant’s admitted prior art also do not disclose the features of claim 19.

For at least this reason it is respectfully requested that the rejection of claim 19 be reversed.

D. Claims 4, 5, 14 and 15 are novel and are not obvious over Weberhofer in view of Appellant's admitted prior art and further in view of Zhang

i. Claim 4

Claim 4 depends from claim 1 and further limits claim 1. Furthermore, claim 4 recites “the decrementing decrements the measured bucket by a length of the transmitted packet.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also does not disclose the features of claim 4.

Zhang discloses a method for providing a QoS to gateway users in a data traffic network. A host object represents a user who subscribes to a particular service and an appropriate provisioning scheme is used to determine which packets to discard when a traffic limit has been exceeded.

Claim 4 is dependent upon claim 1 inherits all of the limitations thereof. As discussed above in Section VIII.C.(i), the combination of Weberhofer and Appellant’s admitted prior art fails to disclose or suggest all of the elements of claim 1. In addition, Zhang fails to cure the deficiencies in Weberhofer and Appellant’s admitted prior art as

Zhang also fails to teach or suggest “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in claim 1. Thus, the combination of Weberhofer, Appellant’s admitted prior art and Zhang fails to teach or suggest all of the elements of claims 4.

For at least this reason it is respectfully requested that the rejection of claim 4 be reversed.

ii. Claim 5

Claim 5 depends from claim 3 which depends from claim 1 and further limits claim 1. Furthermore, claim 5 recites “the decrementing decrements the measured bucket by a token.” Because Weberhofer and Appellant’s admitted prior art do not disclose the particular features of the method of “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in independent claim 1 as submitted in Section VIII.C.(i), Weberhofer and Appellant’s admitted prior art also does not disclose the features of claim 5.

The description of Zhang was presented in Section VIII.D.(i).

Claim 5 is dependent upon claim 1 inherits all of the limitations thereof. As discussed above in Section VIII.C.(i), the combination of Weberhofer and Appellant’s admitted prior art fails to disclose or suggest all of the elements of claim 1. In addition, Zhang fails to cure the deficiencies in Weberhofer and Appellant’s admitted prior art as Zhang also fails to teach or suggest “setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type”, as recited, in part, in claim 1. Thus, the combination of Weberhofer, Appellant’s admitted prior art and

Zhang fails to teach or suggest all of the elements of claim 5.

For at least this reason it is respectfully requested that the rejection of claim 5 be reversed.

iii. Claim 14

Claim 14 depends from claim 13 which depends from claim 11 and further limits claim 11. Furthermore, claim 14 recites “the bucket updating engine decrements the measured bucket by a length of the transmitted packet.” Because Weberhofer and Appellant’s admitted prior art does not disclose the particular features of the system of “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in independent claim 11 as submitted in Section VIII.C.(ix), Weberhofer and Appellant’s admitted prior art also does not disclose the features of claim 14.

The description of Zhang was presented in Section VIII.D.(i).

Claim 14 is dependent upon claim 11 inherits all of the limitations thereof. As discussed above in Section VIII.C.(ix), the combination of Weberhofer and Appellant’s admitted prior art fails to disclose or suggest all of the elements of claim 11. In addition, Zhang fails to cure the deficiencies in Weberhofer and Appellant’s admitted prior art as Zhang also fails to teach or suggest “a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type”, as recited, in part, in claim 11. Thus, the combination of

Weberhofer, Appellant's admitted prior art and Zhang fails to teach or suggest all of the elements of claim 14.

For at least this reason it is respectfully requested that the rejection of claim 14 be reversed.

iv. Claim 15

Claim 15 depends from claim 13 which depends from claim 11 and further limits claim 11. Furthermore, claim 15 recites "the bucket updating engine decrements the measured bucket by a token." Because Weberhofer and Appellant's admitted prior art do not disclose the particular features of the system of "a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter at least one packet type", as recited, in part, in independent claim 11 as submitted in Section VIII.C.(ix), Weberhofer and Appellant's admitted prior art also does not disclose the features of claim 15.

The description of Zhang was presented in Section VIII.D.(i).

Claim 15 is dependent upon claim 11 inherits all of the limitations thereof. As discussed above in Section VIII.C.(ix), the combination of Weberhofer and Appellant's admitted prior art fails to disclose or suggest all of the elements of claim 11. In addition, Zhang fails to cure the deficiencies in Weberhofer and Appellant's admitted prior art as Zhang also fails to teach or suggest "a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet types filters, each packet type filter being configured to filter

at least one packet type", as recited, in part, in claim 11. Thus, the combination of Weberhofer, Appellant's admitted prior art and Zhang fails to teach or suggest all of the elements of claim 15.

For at least this reason it is respectfully requested that the rejection of claim 15 be reversed.

IX. CONCLUSION

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 1-19 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in this case and indicate the allowability of application claims 1-19.

In the event that this paper is not being timely filed, the Appellant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Encs: Appendix 1 - Claims on Appeal
Appendix 2 - Evidence
Appendix 3 - Related Proceedings

APPENDIX 1
CLAIMS ON APPEAL

1. (Previously Presented) A method, comprising:
 - setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type;
 - incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters;
 - receiving a packet having a packet type;
 - measuring the bucket that is coupled to the packet type filter that filters for the received packet type; and
 - transmitting the packet if its measured bucket is above a threshold value.
2. (Original) The method of claim 1, further comprising dropping the packet if the measured bucket is below a threshold value.
3. (Original) The method of claim 1, further comprising decrementing the measured bucket if the packet is transmitted.
4. (Original) The method of claim 3, wherein the decrementing decrements the measured bucket by a length of the transmitted packet.
5. (Original) The method of claim 3, wherein the decrementing decrements the measured bucket by a token.

6. (Original) The method of claim 1, wherein the buckets are each incremented at different rates.

7. (Original) The method of claim 1, wherein a maximum value for each bucket is different.

8. (Original) The method of claim 1, wherein a first packet type includes unicast and a second packet type includes multicast and broadcast.

9. (Original) The method of claim 1, wherein a first packet type includes packets having a first QOS level and a second packet type includes packets having a second QOS level.

10. (Previously Presented) A system, comprising:
means for setting a plurality of packet type filters so that each of said packet type filters performs filtering for a different packet type;
means for incrementing a plurality of buckets, each bucket communicatively coupled to a packet type filter of the plurality of filters;
means for receiving a packet having a packet type;
means for measuring the bucket that is coupled to the packet type filter that filters for the received packet type; and
means for transmitting the packet if the measured bucket is above a threshold

value.

11. (Previously Presented) A system, comprising:

a packet receiving engine, configured to receive packets of at least a first type and a second type;

a plurality of buckets, each communicatively coupled to the packet receiving engine, each communicatively coupled to a packet type filter of a plurality of packet type filters, each packet type filter being configured to filter at least one packet type;

a bucket updating engine, communicatively coupled to the packet receiving engine, configured to increment a first bucket and a second bucket;

a packet handling engine, communicatively coupled to the packet receiving engine, configured to measure the bucket coupled to the packet type filter that filters for the type of packet received, and configured to transmit the received packet if the measured bucket is above a threshold value.

12. (Previously Presented) The system of claim 11, wherein the packet handling engine is further configured to drop the packet if its measured bucket is below a threshold value.

13. (Previously Presented) The system of claim 11, wherein the bucket updating engine is further configured to decrement the measured bucket if the packet is transmitted.

14. (Original). The system of claim 13, wherein the bucket updating engine decrements the measured bucket by a length of the transmitted packet.

15. (Original) The system of claim 13, wherein the bucket updating engine decrements the measured bucket by a token.

16. (Original) The system of claim 13, wherein the bucket updating engine increments each bucket at different rates.

17. (Original) The system of claim 11, wherein a maximum value for each bucket is different.

18. (Original) The system of claim 11, wherein the first packet type includes unicast and the second packet type includes multicast and broadcast.

19. (Original) The system of claim 11, wherein the first packet type includes packets having a first QOS level and the second packet type includes packets having a second QOS level.

APPENDIX 2
EVIDENCE APPENDIX

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.

APPENDIX 3
RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R. §41.37(c)(1)(ii).